

What is claimed is:

1 1. A shared cache server being placed on a common network in
2 which a plurality of virtual networks each being placed in a
3 virtually partitioned manner is constructed corresponding to a
4 plurality of groups, comprising:

5 a storage device to store contents in each of a plurality
6 of storage areas allocated corresponding to said plurality of
7 groups;

8 a plurality of virtual interfaces being placed in a manner
9 to correspond to said plurality of virtual networks;

10 an address converting function section, when receiving a
11 packet requesting for contents with a Uniform Resource Locator
12 (URL) designated through one of said virtual interfaces, converts
13 part of an Internet Protocol (IP) address contained in said packet
14 to an internal address corresponding to a virtual interface having
15 received said packet; and

16 a cache function section, based on an internal address
17 converted by said address converting function section, reads
18 contents from a corresponding storage area of said storage device.

1 2. The shared cache server according to Claim 1, further
2 comprising a tag inserting function section to convert said
3 internal address to a tag corresponding to said group and to insert
4 said tag into said Uniform Resource Locator and wherein said
5 cache function section designates contents based on said Uniform
6 Resource Locator into which said tag is inserted.

1 3. The shared cache server according to Claim 2, wherein said

2 tag inserting function section converts, for a packet with a
3 specified Uniform Resource Locator designated, said internal
4 address to a specified tag being used commonly in said group.

1 4. The shared cache server according to Claim 1, further
2 comprising a storage capacity managing function section to manage
3 storage capacity in a storage area in every said group.

1 5. The shared cache server according to Claim 4, wherein said
2 storage capacity managing function section dynamically manages
3 said storage area in every said group.

1 6. The shared cache server according to Claim 1, further
2 comprising a Domain Name System (DNS) proxy function section to
3 designate a server in which contents are stored when contents
4 designated by said packet are not stored in said storage device.

1 7. The shared cache server according to Claim 1, wherein said
2 plurality of virtual networks each being placed in a partitioned
3 and virtual manner is constructed in accordance with IEEE 802.
4 1Q.

1 8. The shared cache server according to Claim 1, wherein said
2 plurality of virtual networks each being placed in a virtually
3 partitioned manner is constructed in accordance with MPLS Multi
4 Protocol Label Switching (MPLS) technology.

1 9. A shared cache server being placed on a common network
2 connected to a plurality of groups each having an Internet

3 Protocol address range to be used being different from one another,
4 comprising:

5 a storage device to store contents in each of a plurality
6 of storage areas corresponding to said plurality of groups; and
7 a cache function section to convert, when receiving a packet
8 requesting for contents with a Uniform Resource Locator (URL)
9 designated, part of an Internet Protocol (IP) address contained
10 in said packet to a tag corresponding to said group and to insert
11 said tag into said Uniform Resource Locator (URL) and to read
12 contents from a storage area of said storage device based on said
13 Uniform Resource Locator (URL) into which said tag has been
14 inserted.

1 10. A shared cache server being placed on a common network in
2 which a plurality of virtual networks each being placed in a
3 virtually partitioned manner is constructed corresponding to a
4 plurality of groups, comprising:

5 a storage device to store contents in each of a plurality
6 of storage areas allocated corresponding to said plurality of
7 groups;

8 a plurality of virtual interfaces being placed in a manner
9 to correspond to said plurality of virtual networks;

10 an address converting means, when receiving a packet
11 requesting for contents with a Uniform Resource Locator (URL)
12 designated through one of said virtual interfaces, converts part
13 of an Internet Protocol (IP) address contained in said packet to
14 an internal address corresponding to a virtual interface having
15 received said packet; and

16 a cache means, based on an internal address converted by

17 said address converting means, reads contents from a
18 corresponding storage area of said storage device.

1 11. The shared cache server according to Claim 10, further
2 comprising a tag inserting means to convert said internal address
3 to a tag corresponding to said group and to insert said tag into
4 said Uniform Resource Locator and wherein said cache means
5 designates contents based on said Uniform Resource Locator into
6 which said tag is inserted.

1 12. The shared cache server according to Claim 11, wherein said
2 tag inserting means converts, for a packet with a specified
3 Uniform Resource Locator designated, said internal address to a
4 specified tag being used commonly in said group.

1 13. The shared cache server according to Claim 10, further
2 comprising a storage capacity managing means to manage storage
3 capacity in a storage area in every said group.

1 14. The shared cache server according to Claim 13, wherein said
2 storage capacity managing means dynamically manages said storage
3 area in every said group.

1 15. The shared cache server according to Claim 10, further
2 comprising a Domain Name System (DNS) proxy means to designate
3 a server in which contents are stored when contents designated
4 by said packet are not stored in said storage device.

1 16. The shared cache server according to Claim 10, wherein said

2 plurality of virtual networks each being placed in a virtually
3 partitioned manner is constructed in accordance with IEEE 802.
4 1Q.

1 17. The shared cache server according to Claim 10, wherein said
2 plurality of virtual networks each being placed in a virtually
3 partitioned manner is constructed in accordance with MPLS Multi
4 Protocol Label Switching (MPLS) technology.

1 18. A shared cache server being placed on a common network
2 connected to a plurality of groups each having an Internet
3 Protocol address range to be used being different from one another,
4 comprising:

5 a storage device to store contents in each of a plurality
6 of storage areas corresponding to said plurality of groups; and

7 a cache means to convert, when receiving a packet requesting
8 for contents with a Uniform Resource Locator (URL) designated,
9 part of an Internet Protocol (IP) address contained in said packet
10 to a tag corresponding to said group and to insert said tag into
11 said Uniform Resource Locator (URL) and to read contents from a
12 storage area of said storage device based on said Uniform Resource
13 Locator (URL) into which said tag has been inserted.